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Application No.: 09/976,862
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Amendments to the Claims:

Please replace all prior versions, and listings of claims in the application with the following listing of claims.

Listing of claims

Claim 1 (currently amended): A method of estimating a DC offset level of an input signal having a preamble part and a data part, the method comprising:

during reception of a preamble part of an input signal, using an estimation method which does not rely on a DC-free signal to estimate the DC offset value of the input signal;
and

during reception of a data part of the input signal, which data part follows the preamble part of the signal, using ~~[[an]]~~ a different estimation method which relies on a DC-free signal to estimate the DC offset value of the input signal.

Claim 2 (original): A method of estimating a DC offset value of a frequency modulated input signal which comprises a preamble portion followed by a data portion, the method comprising:

estimating a DC offset value of the preamble portion of the input signal using a resistance and first and second diodes connected in parallel, the input signal being supplied to one terminal of the resistance, to the anode of the first diode and to the cathode of the second diode, and the DC estimate being supplied from a terminal connected with another terminal of the resistance, with the cathode of the first diode and with the anode of the second diode;
and

estimating a DC offset value of the data part of the input signal using a low pass filter which includes the said resistance.

Claim 3 (original): A method as claimed in claim 2, wherein the voltage drop across each diode, when the diode is on, is set to equal the voltage deviation corresponding to a maximum frequency deviation of the input signal.

Claim 4 (original): A circuit for estimating a DC offset value of an input signal comprising:

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input and output terminals;

a low pass filter including a resistor and a capacitor, the resistor being connected between the input and output terminals and the capacitor being connected between the output terminal and ground;

a pair of diodes operatively connected in parallel between the input and output terminals of the circuit, the first diode having its anode connected to the input terminal and its cathode connected to the output terminal, and the second diode having its cathode connected to the input terminal and its anode connected to the output terminal; and

switch means operable to switch a connection to the output terminal, such that the pair of diodes is connected to the output terminal during receipt of a preamble part of an input signal, and is not connected to the output terminal during receipt of a data part of the input signal subsequent to the preamble part thereof.

Claim 5 (original): A circuit for estimating a DC offset level of an input signal, the circuit comprising:

input and output terminals;

a capacitance connected between the output terminal and ground;

a control unit having an input, and an output which is connected with the output terminal;

a resistance connected between the input terminal and the output terminal;

a first diode having its anode connected with the input terminal and its cathode connected with the input of the control unit; and

a second diode having its cathode connected with the input terminal and its anode connected with the input of the control unit;

wherein the control unit is operable to selectively connect its input to the output terminal, such that the first and second diodes are connected to the output terminal during receipt of a preamble part of an input signal, and such that the first and second diodes are not connected to the output terminal during receipt of a data part of the input signal subsequent to the preamble part thereof.